BIBLIOGRAPHICAL NOTICE.

The Ancient Life-History of the Earth. By Prof. H. A. Nicholson, M.D., D.Sc., &c. 8vo. Pp. 408, with 270 woodcuts. Blackwood: Edinburgh, 1877.

The author well defines this work as "a comprehensive outline of the principles and leading facts of palæontological science." It differs from many of the books already written on palæontology; for it is not unfairly weighted with the over-treatment of any one favoured subject—it is not devoted to the mere enumeration or to a very special illustration of all the fossils of each formation—it is not a mere popular sketch of the organic beings of the past—it is not shackled with hesitations about old philosophies—but is written evidently with a full personal knowledge of the subject-matters, a good acquaintance with what our continental and American fellow-workers have said and done, and in an open-minded but far from rash scientific spirit, seeking truth for truth's sake, enlightened sometimes by the doctrine of evolution, and sometimes feeling for that "deeper and higher law" which has ruled nature with still greater power.

In his concise introductory sketch of "the laws of geological action," our excellent teacher opportunely and with justice warns us that the Huttonian reaction against pure *Catastrophism* carried geologists too far, and that "Catastrophes" must be allowed for, though the general truth of the doctrine of *Continuity* is to be fully admitted.

The President of the Geological Society of London also, in his late Address, has done good service to science in urging geologists to think more of the evidences and theoretical aspects of "Catastrophes," and to be less strongly influenced by the Uniformitarian reaction than they have been of late years.

The definition of Palæontology, its "scope and materials," and a sketch of what is meant by "fossiliferous rocks," with concise descriptions and useful illustrations, will prove useful to students and general readers. The "chronological succession of the fossiliferous rocks" is treated of in a short but sound and philosophical chapter; and "the breaks in the geological record," and "the biological relations of fossils," are equally good.

The main body of the work is, of course, "historical palæontology;" and this is carried out with great judgment, full information carefully condensed, conscientious treatment of obscure fossils, and a sound knowledge of both palæontology and physical geology. Each system, from the Laurentian to the Post-pliocene, has its fossils and life-history treated of in succession.

Of the numerous woodcuts, some are new; and, though the others have been used in earlier books, they are carefully chosen and well-applied; and the majority are inscribed with their original source.

A very useful bibliographic list of the more important books and papers having reference to each system of formations is appended to the successive chapters on the great periods; and a generalized section is given for each of the great series in England or elsewhere.

The concluding chapter, on "the Succession of Life upon the Globe," is well worthy of attention. The general appearance of *succession* and *progression* among living things of all recognizable time—the apparent exceptions to these phenomena—the gradual introduction and extinction of faunæ and floræ in most instances—the apparently almost sudden incoming and disappearance of such groups as the Graptolites and Trilobites—and the apparently sudden appearance of Hippuritidæ, of the Dicotyledonous flora, and, indeed, of the Cambrian fauna, are treated of in a clear-sighted philosophic spirit, glad to gather all that is known, and waiting and working for further light.

A tabular view of the chief divisions of the animal kingdom is given in the Appendix. A careful Glossary and full Index complete this well-arranged and well-printed book, which we cordially recommend to geologists and other naturalists.

MISCELLANEOUS.

Zoology of the 'Challenger' Expedition.

To the Editors of the Annals and Magazine of Natural History.

Gentlemen,—Since I wrote you on the subject of the distribution of the 'Challenger' collections for description and study, a distinguished naturalist has moved in the House of Commons for the instructions given by the Treasury to Sir C. Wyville Thomson. The Treasury (courting, as I know they may well and safely do, the fullest inquiry) have ordered the whole correspondence to be printed; and it will be in hand shortly.

An important letter has already been communicated to a public department; and as I have seen it, I can now write on a matter in which my hands were formerly tied. The arrangements of the 'Challenger' expedition were superintended by a Circumnavigation Committee, which reported at last to the Council of the Royal Society; so that when the Treasury asked for the advice of that body, one of the secretaries was instructed to write, embodying the suggestions of the Committee. I need hardly say that this was carefully and faithfully done; and now the letter advising the Government can be seen, and I trust that I am not transgressing in stating that extraordinary care was taken in it to do what was best for science and